

## MORASH, MELANIE

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**From:** MORASH, MELANIE  
**Sent:** Thursday, October 13, 2016 10:50 AM  
**To:** J. Wesley Hawthorne; Shaffer, Caleb  
**Cc:** Mezquita, Marlon; Cynthia Woo; Graham Pugh; Lawrence McGuire; Leslie Lundgren; Lora Battaglia; Martha Adams; Rose Condit; Sabrina Morales; Shelley Rice; Wenqian Dou; Elizabeth Brown; Heather O'Cleirigh; Joseph Innamorati; Linda Niemeyer; Michele Yuen; Morgan Gilhuly; Nancy-Jeanne LeFevre; Peter Bennett; Peter Scaramella; Rebecca Mora; Shau Luen Barker; Shaun Moore; Todd Maiden; Wendy Feng; DIAZ, ALEJANDRO; Estrada, Thelma; Harris-Bishop, Rusty; Lueders, Jesse; Lyons, John; Maldonado, Lewis; MORASH, MELANIE; Parker, Heather; Plate, Mathew; Stralka, Daniel; Yogi, David  
**Subject:** EPA Comments - Philips Site - Updated Work Plan & QAPP - Bioremediation Treatability Study at 811 East Arques Avenue - Revised plans due Tuesday, Oct. 18th

Good morning, Wes,

Thank you for submitting these revised documents. **Please revise and re-submit the plans addressing the three remaining critical comments (discussed below) by Tuesday, October 18<sup>th</sup>.** If you need additional time please identify a reasonable alternative submittal date.

### **Background**

Prior to this submittal, we had met in-person at your office in Mountain View on July 15, 2016 with staff from EPA's Quality Assurance Office. Also in attendance were a senior chemist and hydrogeologist from EPA's contractor – CB&I – who have many years of experience working on in-situ bioremediation projects. We discussed a number of areas in the workplan and Quality Assurance Project Plan (QAPP) where deficiencies or gaps were identified. We then toured the treatability study site - the outparcel at 811 Arques and the treatment pad at 813 Stewart/440 North Wolfe – and further discussed various improvements that could be made to your plans to build capacity and robustly meet EPA's Quality Assurance requirements.

### **Summary of Previous Written Comments**

We have already provided you with detailed, written comments on the Workplan and QAPP on January 15, 2016, March 9, 2016 and June 12, 2016. The June 2016 comments also included excerpts from a guidance document on in-situ bioremediation of chlorinated solvents. These comments can be easily found by visiting EPA's website for the Triple Site, scrolling down to the "Technical Documents" section, and opening the sub-folder "09/16/16 – Groundwater Treatability Study: Bioremediation."

Significant staff and contractor time has been spent on reviewing your workplans and their related updates, preparing detailed, technical written comments, and in meetings and conference calls with you and your staff.

Following our July 2016 meeting and site visit, we agreed that instead of preparing another set of detailed, written comments for you that you would update your plans based on our extensive in-person discussion and information sharing.

### **Latest Updates of Workplan and QAPP**

***We appreciate your submitting these updated plans, and we understand the urgency of meeting the property owner's timeframe. However, many items that we covered during our in-person meeting and previous sets of written comments still have not been incorporated into these latest updates.***

However, we appreciate that you have done the following:

- - Added an upgradient monitoring well
- - Added a specific data quality objective section to the workplan
- - Added using in-line monitoring equipment for field measurements and specified using an optical dissolved oxygen probe

### **Three Previously Conveyed Comments That Must Be Incorporated Into the Workplan and QAPP**

Out of a sense of urgency and consistent with the National Contingency Plan and CERCLA, which allows EPA broad authority to move forward quickly in the ongoing vapor intrusion investigations in the Offsite Operable Unit to protect public health, EPA would like to work with you to move this work forward to reduce the significant vapor intrusion risk in the nearby residential and school community and meet your November 7<sup>th</sup> mobilization date.

However, we feel strongly that the following items must be incorporated into the Workplan and QAPP, at a minimum, before we can approve your moving forward:

1. Methane monitoring in soil gas is not clearly defined using an appropriate soil gas monitoring well. The Workplan states that methane monitoring in soil gas is described in the QAPP; however, the QAPP has no details about methane monitoring in soil gas. No soil gas wells are identified at the site, no descriptions about installing soil gas probes are included, and no frequency of sampling is identified.
2. A table summarizing the wells to be monitored during the treatability study is not included. We discussed adding a table with well purpose, well total depth, and screen intervals for clarity and better understanding of the test monitoring area.

3. The procedure for collecting hydrogen samples is not included in current Workplan or QAPP.

### **Looking Ahead**

We will continue to review your Workplan and QAPP and will work with you to provide additional, detailed written comments that are clear and precise to address remaining areas where the plans can be improved. In the future, it would be helpful when we provide detailed, technical written comments (such as those provided on January 15, 2016, March 9, 2016 and June 12, 2016) for you to prepare a response-to-comments letter that details how the plans were revised in response to each individual comment.

Regards,

Melanie Morash

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Melanie Morash, Project Manager  
California Site Cleanup Section I, Superfund Division

US EPA Region 9  
75 Hawthorne Street (SFD-7-1)  
San Francisco, CA 94105

(415) 972-3050 [office]  
(415) 535-3732 [mobile]  
[morash.melanie@epa.gov](mailto:morash.melanie@epa.gov)

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**From:** J. Wesley Hawthorne [mailto:[hawthornej@locustec.com](mailto:hawthornej@locustec.com)]  
**Sent:** Tuesday, October 04, 2016 10:58 AM  
**To:** MORASH, MELANIE <[morash.melanie@epa.gov](mailto:morash.melanie@epa.gov)>  
**Cc:** 'Lundgren, Leslie' <[Leslie.Lundgren@Cbifederaleservices.com](mailto:Leslie.Lundgren@Cbifederaleservices.com)>; Barker, Shau-Luen ([ShauLuen.Barker@philips.com](mailto:ShauLuen.Barker@philips.com)) <[ShauLuen.Barker@philips.com](mailto:ShauLuen.Barker@philips.com)>; Nancy-Jeanne LeFevre <[LeFevren@locustec.com](mailto:LeFevren@locustec.com)>  
**Subject:** RE: Updated Quality Assurance Project Plan for Bioremediation Treatability Study, 811 East Arques Avenue

Melanie:

We recently got in touch with the assistant store manager at the Lowe's store (Ariel Garcia, 408-470-1680). We summarized the activities in the work plan for him, and he said there should be no problem proceeding. However, since they start using portions of their parking lot area for selling Christmas trees, it would be better if we could get the majority of the mobilization completed before the Thanksgiving holiday. Our drillers and other contractors and vendors are able to accommodate this work in the week of November 7. We are preparing for mobilization that week in order to prevent extended delays associated with access and availability during the holiday season.

Please let me know if you have any questions, or further comments on the QAPP or treatability study work plan.

Thank you,

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J. Wesley Hawthorne, PE, PG

President

phone: +1 (415) 719-9937

email: [hawthornej@locustec.com](mailto:hawthornej@locustec.com)

Locus Technologies

299 Fairchild Drive

Mountain View, CA 94043

[locustec.com](http://locustec.com)

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**From:** MORASH, MELANIE [<mailto:morash.melanie@epa.gov>]

**Sent:** Monday, September 19, 2016 1:32 PM

**To:** J. Wesley Hawthorne <[hawthornej@locustec.com](mailto:hawthornej@locustec.com)>

**Cc:** 'Lundgren, Leslie' <[Leslie.Lundgren@Cbifederaleservices.com](mailto:Leslie.Lundgren@Cbifederaleservices.com)>; Barker, Shau-Luen ([ShauLuen.Barker@philips.com](mailto:ShauLuen.Barker@philips.com)) <[ShauLuen.Barker@philips.com](mailto:ShauLuen.Barker@philips.com)>; Nancy-Jeanne LeFevre <[LeFevren@locustec.com](mailto:LeFevren@locustec.com)>

**Subject:** Re: Updated Quality Assurance Project Plan for Bioremediation Treatability Study, 811 East Arques Avenue

Good afternoon, Wes,

Thank you for submitting these two documents. We will review as quickly as we can.

Regards,

Melanie

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Melanie Morash, Remedial Project Manager  
California Site Cleanup Section I, Superfund Division

US EPA Region 9  
75 Hawthorne Street (SFD-7-1)  
San Francisco, CA 94105

(415) 972-3050 [phone]  
(415) 947-3528 [fax]  
[morash.melanie@epa.gov](mailto:morash.melanie@epa.gov)

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**From:** J. Wesley Hawthorne <[hawthornej@locustec.com](mailto:hawthornej@locustec.com)>

**Sent:** Monday, September 19, 2016 1:07:20 PM

**To:** MORASH, MELANIE

**Cc:** 'Lundgren, Leslie'; Barker, Shau-Luen ([ShauLuen.Barker@philips.com](mailto:ShauLuen.Barker@philips.com)); Nancy-Jeanne LeFevre

**Subject:** Updated Quality Assurance Project Plan for Bioremediation Treatability Study, 811 East Arques Avenue

Melanie:

Attached is an updated QAPP for the bioremediation treatability study at the 811 East Arques Avenue site, which includes revisions made pursuant to our recent onsite meeting.

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**J. Wesley Hawthorne, PE, PG**

President

**phone:** +1 (415) 719-9937

**email:** [hawthornej@locustec.com](mailto:hawthornej@locustec.com)

**Locus Technologies**

299 Fairchild Drive

Mountain View, CA 94043

[locustec.com](http://locustec.com)

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